

CLAIMS

What is claimed is:

- 1 1. A method for supporting the respiration of a patient
2 comprising the steps of:
3 detecting the spontaneous respiration of the patient is by
4 sensors;
5 identifying the end of the inhalation process; and
6 administering an additional amount of oxygen to the
7 lungs.
- 1 2. The method of claim 1, wherein the additional amount of
2 oxygen is administered at the end of an inhalation process.
- 1 3. The method of claim 1, wherein the amount of oxygen has
2 a volume of about between 25 ml - 150 ml.
- 1 4. The method of claim 2, wherein the amount of oxygen has
2 a volume of about between 25 ml - 150 ml.
- 1 5. The method of claim 1, further comprising the step of
2 braking the exhalation process of the patient with a countercurrent.
- 1 6. The method of claim 2, further comprising the step of
2 braking the exhalation process of the patient with a countercurrent.
- 1 7. An apparatus for supporting the respiration of a patient
2 that comprises an oxygen pump operatively connected to an oxygen
3 source, the apparatus further comprising sensors for detecting the
4 spontaneous respiration of the patient, the sensors are connected to a
5 control unit for activating the oxygen pump.

1 8. The apparatus of claim 7, wherein the oxygen pump
2 comprises a tracheal prosthesis connectible by a catheter, the
3 tracheal prosthesis having a tubular support body with a connection
4 for the catheter.

1 9. The apparatus of claim 8, wherein the sensors are
2 associated with the support body of the tracheal prosthesis.

1 10. The apparatus of claim 9, wherein at least one sensor is
2 coupled with the inner wall of the support body.

1 11. The apparatus of claim 9, wherein the end of the catheter
2 located in the support body is deflected approximately parallel to its
3 longitudinal axis (L) and is provided on the end with a jet nozzle.

1 12. The apparatus of claim 10, wherein the end of the
2 catheter located in the support body is deflected approximately
3 parallel to its longitudinal axis and is provided on the end with a jet
4 nozzle.

1 13. The apparatus of claim 7, wherein the oxygen pump is a
2 piston pump.

1 14. The apparatus of claim 12, wherein the oxygen pump is a
2 piston pump.

1 15. The apparatus of claim 8, wherein the catheter has a
2 double-lumen design.

1 16. The apparatus of claim 14, wherein the catheter has a
2 double-lumen design.

1 17. The apparatus of claim 7, further comprising additional
2 respiration sensors.

1 18. The apparatus of claim 9, further comprising additional
2 respiration sensors.

1 19. A tracheal prosthesis comprising a tubular support body, a
2 connection for a jet catheter and at least two sensors coupled with the
3 support body.

1 20. The tracheal prosthesis of Claim 19, wherein at least one of
2 the sensors is coupled with the inner wall of the support body.

1 21. The tracheal prosthesis of claim 19, wherein the catheter is
2 operatively coupled with the support body.

1 22. The tracheal prosthesis of claim 20, wherein the catheter is
2 operatively coupled with the support body.

1 23. A catheter having a first and second end, one end
2 affixable by at least one sensor.

1 24. The catheter of claim 23, wherein the at least one end
2 comprises a jet nozzle.

1 25. The catheter of claim 23, wherein the at least one end has
2 a curved course.

1 26. The catheter of claim 24, wherein the at least one end has
2 a curved course.